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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,414	01/26/2005	Nicolas Echcs	CELA:132	5549

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STEPTOE & JOHNSON LLP
1330 CONNECTICUT AVENUE, N.W.
WASHINGTON, DC 20036

EXAMINER

CLEMENT, MICHELLE RENEE

ART UNIT	PAPER NUMBER
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3641

MAIL DATE	DELIVERY MODE
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07/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,414

Applicant(s)

ECHES ET AL.

Examiner

Michelle (Shelley) Clement

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 3, 11-15 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-10, 16, 18, 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/25/07 have been fully considered but they are not persuasive. In response to applicant's remarks concerning the 35 U.S.C § 112, second paragraph rejections, it is noted that while the terms "caliber", "over-caliber", "sub-caliber" and "full caliber" are known with relation to the diameter of a gun barrel through which a projectile may be launched, the present invention has not claimed or set forth either a gun barrel or a projectile and has not set forth a caliber in which to ascertain the limitations of the claim. In regards to applicant's contention concerning the references, it is noted that Campoli discloses the invention as claimed, see figures below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5, 8-10 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 5 and 8-10 each recites the limitation "the caliber", "over-caliber", "sub-caliber", and "full-caliber", it is unclear which caliber is being referred to in that no caliber has not been previously cited and there are several possible calibers that could be intended. Furthermore neither a launching barrel nor a projectile has been cited.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

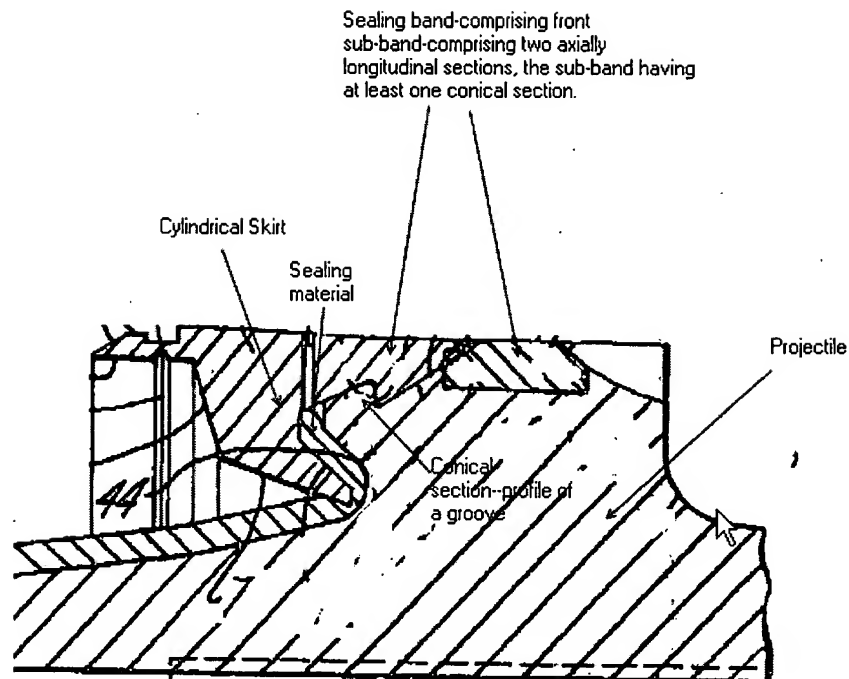
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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4, 8-10, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Campoli (US Patent # 4,444,113). Campoli discloses a sealing band for a projectile, the band comprising a front sub-band comprising at least two axially longitudinal sections (reference 66, 58), the sub-band having at least one a conical section, which in an axial cross-section includes a wedge-shaped profile for tightly fitting with a matching complementary profile of a groove of a projectile, the sub-band attachable to such a projectile by a cylindrical skirt (reference 22). The skirt has internal surface means for fastening to the sub-band. The sealing band having a layer of sealing material placed at the rear of the sub-band (reference 38). The skirt of the band is over-caliber at the level of a rear section and comprising a frontal section of sub-caliber dimension. Campoli further discloses an arrow projectile comprising a sub-caliber core (reference 12) held by a sabot (reference 20) having full caliber and comprising segments, the projectile having a band and characterized in that the sabot has a pusher plate located axially forward of a transversal plane passing through the center of gravity of the complete projectile, the pusher plate having at least one circumferential groove for receiving the sub-band (See summary of the invention). Campoli further discloses ammunition consisting of a casing enclosing a propellant charge and including such a projectile, the ammunition characterized in that the skirt of the band is attached to a fastening ring fixed at the casing (reference 50). The at least two section of the sub-band are arc-shaped (See Figures 3 and 5)

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campoli as applied to claim 1 above, and further in view of Gotz et al. (US Patent # 4,833,995). Although Campoli does not expressly disclose the sub-band having at least one indentation to cooperate with a corresponding indentation of a neighboring sector so as to form a sealing deflecting plate for propellant gases and a flexible sealing material placed in the deflecting

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plates, Gotz et al. does. Gotz et al. teaches a guide band formed in segments and having indentations to cooperate with corresponding indentations of a neighboring sector to form a sealing deflecting plate and a flexible sealing material placed in the deflecting plates in order to simplify construction and create a seal for propellant gases. The sub-band sections are arc-shaped and the deflecting plate is circular. Campoli and Gotz et al. are analogous art because they are from the same field of endeavor: sabotted projectiles. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the indentations for corresponding sectors and sealing material as suggested by Gotz et al. with the sealing band and projectile as taught by Campoli. The suggestion/motivation for doing so would have been to obtain a sealing band that would be easy to manufacture. Campoli and Gotz et al. disclose the claimed invention except for the skirt specifically having a length between 50% and 80% of the caliber. Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the skirt within the specified range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and applicant hasn't disclosed that the specified range solves any stated problem or is for any particular purpose. *In re Aller*, 105 USPQ 233.

Conclusion


8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


MICHELLE CLEMENT
PRIMARY EXAMINER